

John Harada, *et al.*
Application No.: 09/516,052
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C1
cont.
D1

encoding a LEC1 polypeptide, comprising a subsequence at least 80% identical to the B domain of SEQ ID NO:2, wherein the polynucleotide sequence is heterologous to any element in the expression cassette, wherein the subsequence comprises the sequence MPIANVI, and wherein the polynucleotide modulates embryo development when the polynucleotide is expressed in a plant.

C2
D2

21. (Amended) An isolated nucleic acid or complement thereof, encoding a LEC1 polypeptide comprising a subsequence at least 80% identical to the B domain of SEQ ID NO:2, wherein the subsequence comprises the sequence MPIANVI, with the proviso that the nucleic acid is not clone MNJ7 (Genbank Accession No. AB025628), wherein the LEC1 polypeptide modulates embryo development when expressed in a plant.

R3
D3

47. (Amended) A method of modulating embryo development in a plant, the method comprising,

introducing into the plant an expression cassette containing a plant promoter operably linked to a heterologous LEC1 polynucleotide, the heterologous LEC1 polynucleotide encoding a LEC1 polypeptide comprising a subsequence at least 80% identical to the B domain of SEQ ID NO:2, wherein the subsequence comprises the sequence MPIANVI; and

C4
D4

detecting a plant with modulated embryo development.

54. (Twice Amended) The method of claim 47, wherein the detecting step comprises detecting the induction of embryonic characteristics in a plant.

C5
D5

55. (Twice Amended) The method of claim 47, wherein the detecting step comprises detecting the induction of seed development.

74. (New) An expression cassette comprising a promoter operably linked to a heterologous polynucleotide sequence, or a complement thereof, encoding a polypeptide at least 70% identical to SEQ ID NO:2, wherein the polynucleotide sequence is heterologous to an element in the expression cassette, wherein the polypeptide comprises the sequence MPIANVI, and wherein the polynucleotide modulates embryo development when the polynucleotide is expressed in a plant.

75 (New) A transgenic plant cell or transgenic plant comprising an expression cassette comprising a promoter operably linked to a heterologous polynucleotide sequence, or a complement thereof, encoding a polypeptide at least 70% identical to SEQ ID NO:2, wherein the polynucleotide sequence is heterologous to an element in the expression cassette and wherein the polypeptide comprises the sequence MPIANVI.

76. (New) A host cell comprising an expression cassette comprising a promoter operably linked to a heterologous polynucleotide sequence, or a complement thereof, encoding a polypeptide at least 70% identical to SEQ ID NO:2, wherein the polynucleotide sequence is heterologous to an element in the expression cassette and wherein the polypeptide comprises the sequence MPIANVI.

77. (New) A method of modulating embryo development in a plant, the method comprising,

introducing into the plant an expression cassette comprising a promoter operably linked to a heterologous polynucleotide sequence, or a complement thereof, encoding a polypeptide at least 70% identical to SEQ ID NO:2, wherein the polynucleotide sequence is heterologous to an element in the expression cassette and wherein the polypeptide comprises the sequence MPIANVI; and

detecting a plant with modulated embryo development.